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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/091,069

03/04/2002

Nikolai K.N. Leung

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01/11/2005

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

JAIN, RAJ K

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,069

Applicant(s)

LEUNG ET AL.

Examiner

Raj K Jain

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-20 recites the limitation "apparatus as claimed" in each respective claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over March et al (US 20030007486A1) in view of Abrol et al (US 20020154627).

Regarding claims 1, 3, 4, 15 and 17, March method and apparatus for network address translation between devices and/or networks 44, 45 (see Fig 1,), the system comprising;

- receiving an IP packet having a destination IP address; (, the media portals of receive packets for address translation)

- determining a Network Address Translator (NAT) (see Fig 2, 0027, the media portals include network address translators.)

- determining a port number associated with the NAT, the NAT having an NAT IP address (see Fig 2, 0033, each call session consists of an entry for an IP address and port of the appropriate devices);

- converting the destination IP address to the NAT IP address and the port number; and directing the IP packet to the NAT IP address (see Fig 3 0027, 0035, the destination IP addresses and port numbers are converted from IP'2 to IP2 and P2' to P2 respectively).

March fails to disclose the association of the NAT with the Network Access Identifier (NAI).

Abrol discloses a method and apparatus for maintaining IP connectivity between access terminals using network access identifier (see 0060, 0061).

The NAI has a restriction of network addressing and therefore NATs are used to map an arbitrary locally routable IP address to an available globally unique IP address. With the NAT elements, a (relatively) small number of globally unique IP addresses can be used to support a (relatively) large number of access terminals since only a portion of the access terminals are typically active at any given moment.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Abrol within March and therefore enhancing network-addressing capability by converting a locally routable IP address to an available globally unique IP address.

Further with respect to claims 4 and 17, March discloses a gateway 36 (see Fig 1, Para 0022), used to translate call signaling and media between the internet (packet based) and PSTN (circuit switched) networks.

Regarding claims 2 and 7, March discloses call control signaling for establishing a call session using the SIP protocol (see 0025).

Regarding claim 5 and 18, March discloses IP packet translation mapping for each device based on call session establishment (see 0033), the destination address of the IP packet may traverse from the public network to the PSTN via the gateway 36.

Regarding claims 8, March discloses updating of an entry within a NAT module as call sessions are changed (see 0033, 0070).

Regarding claim 9, March discloses packet translation mapping for each device based on call session establishment (see 0033).

Regarding claim 10, March discloses gateway call flow control between different networks (see Figs 1 and 6, 0022) which translates call control signaling and media control.

Regarding claim 11, March discloses a mobile 30 located within the NAT (see Fig 1).

Regarding claim 12, March discloses a various end devices 22, 24 and mobile 30 (see Fig 1) which would include a specific port number and NAT by inherency for IP packet transmissions from one device to another (see 0035, describing IP packet structure in general and translations).

Regarding claim 13, March discloses a NAPT which provides a pool of IPv4 addresses for assignment to IPv6 nodes on a dynamic basis as sessions are initiated across IPv4- IPv6 boundaries, thus the gateway 36 (Fig 1) within March will include an IPv4 addresses.

Regarding claim 14, March discloses storage module for address translations (see claim 1).

Regarding claim 16, 19 and 20, March discloses packet addressing based on the NAT and port numbers and transmission thereof (see Fig 3, paras 0027, 0033-0035).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over March et al (US 20030007486A1) in view of Abrol et al (US 20020154627) further in view of Mulligan et al. March discloses communication of packets between devices and networks using network address translation.

Abrol discloses IP connectivity within devices by identifying the devices within a region by use of network access identifier.

March and Abrol fail to disclose the use of a push gateway within their networks.

Mulligan discloses a push gateway used within a mobile network and web networks (see Figs 1-3, abstract Para 0010-0013).

Push gateways assist in providing a messages to one or more devices without the need of user action or request. This allows essentially for transmitting messages to users from the sender as desired such as police dispatch. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a

push technology scheme of Mulligan within March so as to enhance overall network performance for providing information to users on an ongoing basis such as police fire etc. within a NAT area without the need of continuous request from the users.

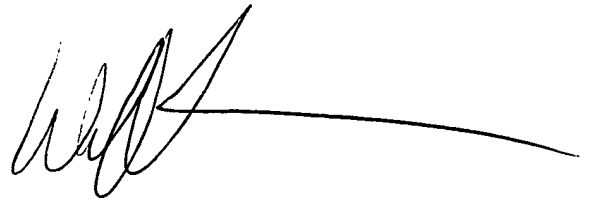
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

RJ
January 6, 2005

A handwritten signature in black ink, appearing to be 'Raj Jain', followed by a long horizontal line extending to the right.